

OFFICE MEMORANDUM



MICHIGAN
DEPARTMENT OF STATE HIGHWAYS

To: L. T. Oehler, Engineer of Research
Research Laboratory Section

From: A. R. Gabel

August 4, 1969
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Subject: "Alert Reflective Liquid" (Cataphote Corp.): Research Project
67 NM-172. Research Report No. R-713.

In accordance with an assignment from New Materials Committee at its September 12, 1967 meeting, comparison tests of "Alert Reflective Liquid" and 3M's "Codit," a currently approved material for pier delineation, were started January 18, 1968.

Alternate stripes of the two materials were applied on two piers of the Creitz Rd overpass on westbound I 96 in the Department's standard delineation pattern. A subsequent night observation showed that the "Alert" material had slightly better reflectance but since "Alert" was silver and "Codit" was white colored, it was felt to be an unfair comparison. Accordingly, a sample of silver colored "Codit" was obtained and on October 23, 1968 both materials in the silver color were applied to piers of the eastbound portion of the same structure.

Night observations were made June 27, 1969 after eight months service. The "Codit" material showed somewhat better reflectance than the "Alert" material as shown in Figure 1. This may have been partially because of paint loss due to flaking of the "Alert" material.

Daytime observations confirmed variable loss of the "Alert" material on one pier (Fig. 2). This condition was also evident to a lesser degree on the other pier and also on the stripes applied earlier on the westbound piers (Fig. 3).

In addition, both materials were applied to concrete blocks and exposed to weathering on the Laboratory roof. The inferior weathering resistance of the "Alert" material as evidenced by paint loss, was further confirmed.

In summary, our field tests show that the submitted "Alert" reflectorized liquid, in its current stage of development, was subject to premature, spotty flaking loss during field exposure, while the "Codit" material remained in satisfactory condition.

TESTING AND RESEARCH DIVISION

Chemist
Research Laboratory Section

cc: A. J. Permoda



Figure 1. Nighttime view of EB I 96 under Crietz Rd shows poorer reflectance of alternate "Alert" stripes after 8 months service.

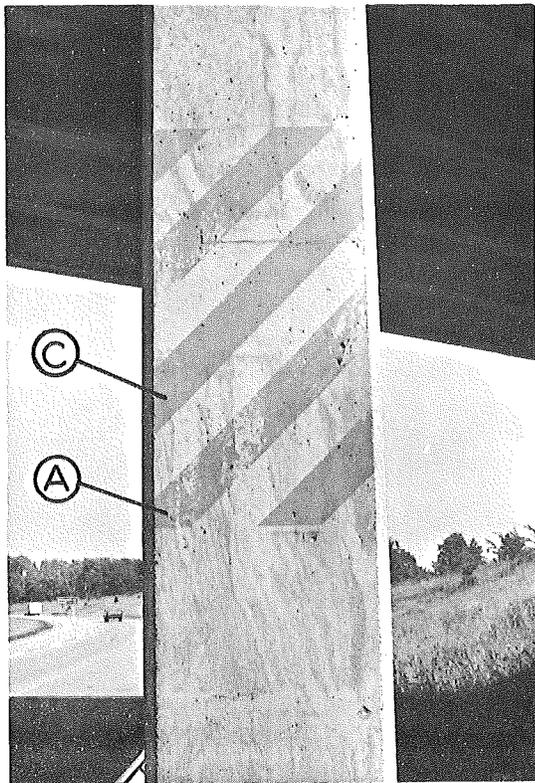


Figure 3. Alternate stripes of "Alert" silver and "Codit" white on Crietz Rd pier, WB I 96. Some flaking loss of silver paint is evidenced after 1-1/2 years of service.

Figure 2. Alternate stripes of "Alert" silver (A) and "Codit" silver (C), Crietz Rd pier, EB I 96. Note flaking loss of the "Alert" after 8 months service (same as right pier in Fig. 1).

